

Meet Lisa Harvey-Smith

What do you do?

I'm an astrophysicist, astronomer or stargazer if you prefer.

How did you get into that job?

When I was a kid growing up in Essex, a place in England, my mum was the head teacher at our local school. But when I was just 11, I made a big decision - I didn't want to go to regular school anymore.

Instead, I started on a journey of 'home education.' It means I learned things on my own, with my dad helping me out at home while my mum worked to support our family.



When I was 12, I went outside at night with my dad, and we looked at the planet Mars. It was amazing! I instantly fell in love with the stars. I joined a local astronomy group and read lots of books about space. I looked at the stars often and that's when I knew I wanted to be an astrophysicist – a scientist who studies things in outer space.

My dad wasn't a qualified teacher, but he has always loved reading. He taught me a lot. I didn't have to follow a strict school plan. Instead, I made my own schedule. I learned about music, poetry, stories, philosophy, history, maths, and science. Nobody made me do anything. I watched TV, the Open University and the BBC aired lots of learning programs. I would watch some of those in the morning, then read books, play my musical instruments and do other creative things like writing poems. In the evenings I'd go to local sports clubs and do judo, badminton and athletics.

I also liked watching a show called 'Home and Away' with my dad during lunchtime. That show served as an unexpected source of inspiration for my eventual journey to Australia!

When I turned 16, I went to Braintree College for my A-levels (that's like the last part of high school in the UK). I did really well there. It wasn't like a regular school – it felt more like a university, because you could come and go as you please and call the lecturers by their first names.

This unique learning style led to my exciting job. I went to the University of Newcastle-upon-Tyne and got a degree in physics with Honours in astronomy and astrophysics. Then, I studied for three years at the University of Manchester to get my Ph.D. (also known as a doctorate) in radio astronomy. After finishing school, I moved to the Netherlands, where I got to work with some of the world's most powerful telescopes. In 2007, I moved to Sydney because I wanted to explore how magnetic fields affect exploding stars. Later, I helped Australia to get the rights to co-host a giant radio telescope called the Square Kilometre Array. I've also written lots of papers and books, and I'm even the Australian Government's Women in STEM Ambassador!

I thrive in an environment where I'm trusted and allowed to do my own thing. Teaching myself at home gave me self-discipline and focus.



What do you love about your job?

I love seeing galaxies whose light has taken more than a billion years to reach Earth.

How does your job help people/the community/the world?

Astronomy helps us to understand where we came from, connect with the universe, and develop awesome inventions like medical scanners and wifi.

What are two things you're not good at?

1. Throwing a frisbee
2. Doing sums in my head

What are two things you are good at?

1. Writing books
2. Stand-up paddleboarding

What makes you happy (outside of work)?

Walking up mountains and cuddling dogs.

Where do you want your career to take you?

I want to help people fall in love with the night sky, whatever their background.

